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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,551	10/15/2003	Pascale Abadie	BREV121835	7694

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EXAMINER

THEXTON, MATTHEW

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 07/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Application No.

10/687.551

**Applicant(s)**

ABADIE ET AL.

**Examiner**

Matthew A. Thexton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-18 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \*   c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Text of Title 35 USC not Cited***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Drawing(s)***

The drawing replacement sheet was received on 2006 May 10. This drawing is acceptable.

### ***Specification***

The disclosure is objected to because of the following informalities: At page 8, line 12, "isophthalic" is misspelled.

Appropriate correction is required.

### ***Claim(s) Version***

The listing of claims submitted in the paper filed 2006 May 10 has been examined.

### ***Claim(s) Analysis***

Claim 6 has been cancelled.

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Claim 1 is directed to material for neutron shielding and maintenance of subcriticality comprising:

- a matrix based on vinylester resin;
- at least one polyamide; and
- an inorganic filler capable of slowing and absorbing neutrons comprising at least one hydrogenated inorganic compound and at least one boron compound.

Dependent claims 2 and 3 further limit the type of polyamide.

Dependent claims 4 and 5 further limit the type of resin.

Claims 7 and 9 depend from claim 1 and further specifies the type of hydrogenated compound to alumina hydrates and magnesium hydroxide.

Claims 8 and 10 depend from claim 1 and further limit the type of boron compound.

Claim 11 depends from claim 1 and further specifies the concentrations of hydrogen.

Claim 12 depends from claim 1 and further specifies the concentrations of boron.

Claim 13 depends from claim 1 and further requires 30-45 weight % vinylester resin, based on the three components.

Claim 14 depends from claim 13 and further requires 10-30 weight % polyamide, based on the three components.

Claim 15 depends from claim 1 and further requires the material density be between 1.3 and 1.6.

Independent claim 16 is directed to methods for making a material comprising:

mix vinylester resin, polyamide, the filler, and at least one resin

polymerization accelerator;

add a catalyst to the mix;

degas the mix under vacuum;

pour the mix in a mold; and

allow to set.

Claim 17 depends from claim 16 and requires the mold is composed of a compartment of a packaging for transport, interim storage, and/or ultimate storage of radioactive products.

Claim 18 depends from claims 1-5 and 7-15 and recites a packaging for transport, interim storage, and/or ultimate storage of radioactive products.

#### ***Claim(s) Objection(s)***

Claim 1 is objected to under 37 CFR 1.75(i) as being in improper form because each of a plurality of elements or steps of a/the claim(s) should be separated by a line indentation. See MPEP § 608.01(m).

#### ***Claim(s) Rejection(s) - Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11

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F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of copending Application No. 10/497267 in view of Collins (US 3261800) or Vogel (US 3609372). The present claims employ polyamide in the neutron shield materials; the claims in copending '267 do not. Both '800 and '372 suggest use of polyamides in neutron shield materials. It would have been obvious to one of ordinary skill in the art at the time of the invention to employ mixtures of suggested polymers given the disclosure that each would be suitable alone.

This is a provisional obviousness-type double patenting rejection.

### ***Response to Arguments***

Applicant's remarks contained in the response filed 2006 May 10 have been considered and are responded to as follows.

Applicant's arguments, see page 9, with respect to the provisional obviousness-type double patenting rejection over '267 have been fully considered and are not persuasive because, although Applicant is correct that "Collins and Vogel do not

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suggest neutron shielding material that includes the specifically recited vinylester resins and at least on polyamide” this ignores the contention that one of ordinary skill in the art would have found it obvious at the time of the invention to modify ‘267 to include polyamide because it is suggested in Collins and Vogel to employ polyamides; combining different materials having the same utility flows naturally from their shared property.

Applicant’s arguments, see page 10, with respect to the provisional obviousness-type double patenting rejection over ‘714 have been fully considered and are persuasive because the vinyl ester resins of the present claims do not include any polyester backbone type resins, as required in ‘714. The rejection of claims 1-11 and 13-18 has been withdrawn.

Applicant’s attorney’s statement of common ownership at the time of the invention (pages 10-12 of response) of inventions in applications 10/497267, 10/490714, and 10/687551 is acknowledged. This is sufficient to overcome the rejection under 35 USC 103(a) as being obvious over Valiere (US 2005/0012054-A1) in view of Collins (US 3261800) or Vogel (US 3609372).

Applicant’s submission (2006 May 10) of the translation and a statement that the translation of the certified foreign priority document is true and accurate is sufficient to overcome the rejection under 35 USC 103(a) as being obvious over Malalel et al. (US 2005/0001205-A1) in view of Collins (US 3261800) or Vogel (US 3609372).

Applicant’s arguments, see pages 14-15 of response, with respect to ‘800 have been fully considered and are persuasive. The rejection of claims 1-4 and 13-18 under

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35 USC 103(a) has been withdrawn. The rejection of claims 6-9, 11, and 12 based on Collins (US 3261800) as applied to claim 1, and further in view of JP 55-119099 (as evidenced by the Derwent abstract) is likewise withdrawn.

Applicant's arguments, see pages 15-16 of response, with respect to '372 (Vogel) have been fully considered and are persuasive. The rejection of claims 1-4 and 13-18 under 35 USC 103(a) has been withdrawn. The rejection of claims 6-9, 11, and 12 based on Vogel (US 3609372) as applied to claim 1, and further in view of JP 55-119099 (as evidenced by the Derwent abstract) is likewise withdrawn.

#### ***Citation of Pertinent Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ozawa et al. (JP 55-119099, USPTO obtained translation) is cited to complete the record.

Bochard (FR 2546331-A1, USPTO obtained translation) is cited to complete the record.

#### ***Contact Information***

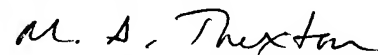
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew A. Thexton whose telephone number is 571-272-1125. The examiner can normally be reached on Tuesday-Friday, 10:00 to 7:30.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasudevan S. Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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